REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-3 and 5-14 are now in the application. Claims 12-14 have been added. Claim 4 has been canceled. Claims 1, 3, 5, 7, and 8 have been amended.

More specifically with regard to the amendment:

- **Claim 1** has been amended by incorporating therein the primary subject matter of claim 8. The "linearly movable pin" now couples the force element to the firing device carrier. Further, the "linearly movable pin" is displaceably supported parallel to the "firing pin." We shall return to the importance of this feature in the following discussion of the prior art.
- **Claims 3, 5, 7, 8, and 10** have been adapted to the changes in claim 1 and to the cancellation of claim 4. Further, the claims have been amended in light of the Examiner's objection in paragraph 1 on page 2 of the Detailed Action.
- **Claims 12 - 14** are directed to a "combined bore-safety and overflight safety fuse" in combination with an explosive projectile. Support for these claims is found in the original claims and in the specification on pages

1 and 2. Details of these claims will also be discussed in the following discussion of the prior art.

We now turn to the art rejection in which claims 1-7 were rejected as being anticipated by Weber et al. (US 5,275,107, hereinafter "Weber") under 35 U.S.C. § 102(b).

Claim 1, as amended, is not anticipated by Weber because the reference does not have, *inter alia*, a pin that couples a force element to the firing device carrier, which pin extends parallel to a firing pin.

Claim 12 is not anticipated by Weber because the reference does not have, *inter alia*, an electronic system that arms the projectile upon target acquisition. In fact, Weber does not provide for a combined bore-safety and overflight safety fuse.

Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 221 USPQ 385 (Fed. Cir. 1984). W.L. Gore and Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303 (Fed. Cir. 1983). The claims are

not anticipated, because there is no single reference that discloses every limitation of the claims at issue. See also, In re Schreiber, 128 F.3d 1473 (Fed. Cir. 1997).

The claimed invention is also not obvious over the reference Weber, whether alone or in any combination. In order to understand Weber and applicants' invention, and to understand the differences between Weber's disclosure and the claims at hand, we should briefly look at the background of these systems.

Ballistics is generally divided into three distinct categories, namely, interior ballistics, exterior ballistics, and terminal ballistics. The first of the three is concerned with the time from loading the gun to the time when the projectile leaves the muzzle. The second of the three is concerned with the time after the projectile has left the muzzle to impact and/or detonation. The third is concerned with the dynamics of impact and the following occurrences.

Weber is concerned with interior ballistics and with the time period leading up to the loading of the projectile into the gun tube. There, a "low acceleration level" is utilized to align the rotor out-of-line and also remove a drive surface that could trigger the arming system. That is, the object

there is in-bore safety. When the projectile is launched, Weber uses the "high acceleration" to set an in-bore lock which is then released once the projectile leaves the gun tube. At that point, the mechanism is ready to be armed.

Weber represents the prior art described in the introduction of the instant application. While the bore-safety factor is provided by Weber, the overflight safety aspect is achieved only by the arming system, which is entirely independent from the in-bore safety system.

The instantly claimed invention is different in that there is provided a combined in-bore safety device and an overflight safety device. According to claim 1, the coupling pin and the firing pin are parallel to one another. In order to assure the proper bore lock, Weber uses an in-bore lock that functions transversely to the pin. According to claim 12, the firing device carrier is moved into the armed position only upon target acquisition. The system of Weber is moved into the armed position (ready for electronic arming) as soon as it exits the gun tube.

In summary, neither Weber nor any other reference, whether taken alone or in combination, shows or suggests the features of the independent claims 1 and 12, or the combination of

features of the dependent claims. The entire set of claims, therefore, is patentable over the art of record.

In view of the foregoing, reconsideration and the allowance of claims 1-3 and 5-14 are solicited.

Respectfully submitted,

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